

EXHAUST EMISSION CONTROL DEVICE FOR DIESEL ENGINE

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EC Classification:
Equivalents:

Abstract

PROBLEM TO BE SOLVED: To efficiently eliminate particulates in the exhaust gas of a diesel engine.
SOLUTION: A diesel engine exhaust system is provided with an oxidation catalyst 5, and a particulate filter 6 disposed downstream of the catalyst 5 so as to collect particulates (soot) in exhaust gas. The particulate filter 6 is divided into a prefilter 7 and a main filter 8, and an oxidation catalyst is disposed (7S) between the filters 7, 8. NO₂ generated by oxidizing NO in the exhaust by the catalyst 5 flows into the prefilter 7 and burns the collected soot so as to be reduced to NO. The oxidation catalyst at a part 7S converts this NO again into NO₂ and supplies it to the main filter 8. Since NO after burning soot is converted into NO₂ and reused to burn soot collected by the filter on the lower reaches, the quantity of NO₂ contributing to the burning of soot is increased while maintaining the total quantity of NO_x in the exhaust gas to the same quantity.

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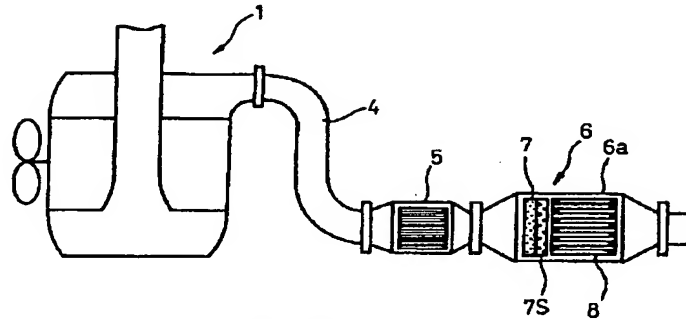
【図2】本発明の、図1とは別の実施形態を説明する図である。

【符号の説明】

1…ディーゼルエンジン
4…排気通路

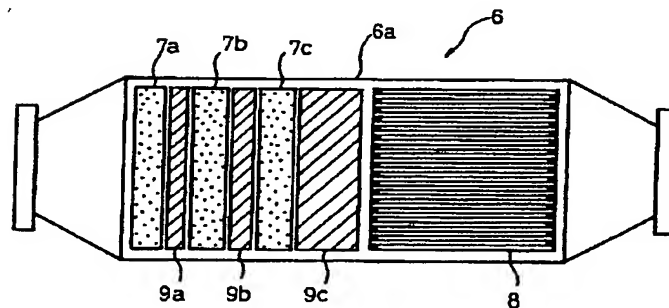
5…酸化触媒
6…フィルタアセンブリ
7…プリフィルタ
8…メインフィルタ

【図1】



1…ディーゼルエンジン
4…排気通路
5…酸化触媒
6…フィルタアセンブリ
7…プリフィルタ
7S…触媒担持部分
8…メインフィルタ

【図2】



6…フィルタアセンブリ
7a, 7b, 7c…プリフィルタ
8…メインフィルタ
9a, 9b, 9c…酸化触媒